Content Summary Grade 5 Reading Comprehension

Students in grade 5 read a variety of fiction (e.g. stories, letters), non-fiction (e.g., general science, social studies, biography, essays, functional texts), and poetry. They are expected not only to understand the literal meaning of grade-appropriate text, but also to interpret meaning through complex processes of analysis, inference, and generalization. To read grade-appropriate text with comprehension, students must demonstrate the processes of:

Factual Understanding

- Understand stated information
- Determine the meaning of new words from their context

Inference and Interpretation

- Draw conclusions, make inferences, and deduce meaning
- Infer traits, feelings, and motives of characters
- Interpret information in new contexts
- Interpret non-literal language

Analysis and Generalization

- Determine the main idea of a text
- Identify the author's views or purpose
- Analyze the style or structure of a text

Performance Level Descriptors Grade 5 Reading Comprehension

The performance level descriptors on the Achievement Levels Report for The Iowa Tests is provided to Iowa schools to describe the level of performance of groups and monitor progress in the distribution of performance over time. For each achievement level— High, Intermediate, and Low—descriptors on the report identify what the typical student in each level is able to do. Students in a particular level satisfy the standards described for performance in lower levels. Students at the High and Intermediate Performance Levels meet the standard for proficiency in reading for that grade.

High Performance Level: Understands factual information and new words in context, is able to make inferences, can interpret non-literal language and information in new contexts, and usually can determine a selection's main ideas and analyze its style and structure.

Distinguished: Understands factual information and new words in context. Can make inferences and interpret either non-literal language or information in new contexts. Can determine a selection's main ideas and analyze its style and structure.

Accomplished: Usually understands factual information and new words in context. Can make inferences and interpret either non-literal language or information in new contexts. Can determine a selection's main ideas and analyze its style and structure.

Intermediate Performance Level: Usually understands factual information and new words in context. Often is able to make inferences and interpret either non-literal language or information in new contexts. Usually can determine a selection's main ideas or analyze its style and structure.

Skilled: Usually understands factual information and new words in context. Often can make inferences and interpret either non-literal language or information in new contexts. Usually can determine a selection's main ideas and analyze its style and structure.

Moderate: Usually understands factual information and new words in context. Often is able to make inferences and interpret either non-literal language or information in new contexts. Sometimes can determine a selection's main ideas and analyze its style and structure.

Low Performance Level: Seldom understands factual information or new words in context. Rarely is able to make inferences and interpret either non-literal language or information in new contexts. Seldom can determine a selection's main ideas or analyze its style and structure.

Marginal: Sometimes understands factual information or new words in context. Sometimes is able to make inferences and interpret either non-literal language or information in new contexts. Seldom can determine a selection's main ideas and analyze aspects of its style and structure.

Weak: Seldom understands factual information or new words in context. Rarely is able to make inferences or to interpret either non-literal language or information in new contexts. Seldom can determine a selection's main ideas or analyze aspects of its style and structure.

Content Summary Grade 5 Mathematics

Students in grade 5 must understand mathematical concepts and estimation strategies, solve multi-step problems, and interpret detailed graphical displays of data. They are expected to demonstrate reasoning in numerical, algebraic, and geometric representations, as well as word problems and graphical displays. The content and process dimensions of mathematics knowledge at this grade level include:

Number Properties and Operations

- Represent, classify, and describe numbers and their properties
- Demonstrate ways of performing operations
- Use place value; write numbers in standard, expanded, and exponential form
- Use and interpret operational and relational symbols
- Use standard rounding, order of magnitude, and number sense to estimate

Algebra

- Solve equations and inequalities
- Use algebraic expressions to model and explore numerical patterns

Geometry

- Identify, classify, and compare geometric figures
- Describe geometric properties, patterns, and relationships
- Apply the concepts of perimeter, area, and volume

Measurement

- Measure length/distance, time, temperature, weight, mass, and volume
- Estimate measurements with appropriate precision
- Identify and use appropriate units of measurement

Probability

- Apply probability concepts and counting rules
- Understand and apply measures of central tendency and variability

Problem Solving

- Solve single- and multiple-step math problems
- Identify extraneous or insufficient information in problems
- Determine a method for solving a problem

Data Interpretation

- Read scales of bar and line graphs and locate amounts in tables
- Determine ranks, sums, or differences and find ratios from data displays
- Determine rates, identify trends, understand functional relationships, and generalize from data displayed in graphs and tables

Performance Level Descriptors for Grade 5 Mathematics

The performance level descriptors on the Achievement Levels Report for The Iowa Tests is provided to Iowa schools to describe the level of performance of groups and monitor progress in the distribution of performance over time. For each achievement level— High, Intermediate, and Low—descriptors on the report identify what the typical student in each level is able to do. Students in a particular level satisfy the standards described for performance in lower levels. Students at the High and Intermediate Performance Levels meet the standard for proficiency in mathematics for that grade.

High Performance Level: Understands math concepts, solves word problems, and interprets data from graphs and tables. Usually can use estimation methods.

Distinguished: Understands math concepts, solves word problems, and interprets data from graphs and tables. Usually can use estimation methods.

Accomplished: Understands math concepts, solves word problems, and interprets data from graphs and tables. Usually can use estimation methods.

Intermediate Performance Level: Usually can understand math concepts, solve word problems, and interpret data from graphs and tables. Sometimes is able to use estimation methods.

Skilled: Usually can understand math concepts and solve word problems. Often can use estimation methods and interpret data from graphs and tables.

Moderate: Usually can understand math concepts. Sometimes is able to solve word problems, use estimation methods, and interpret data from graphs and tables.

Low Performance Level: Seldom can understand math concepts or solve word problems. Rarely is able to use estimation methods or interpret data from graphs or tables.

Marginal: Sometimes can understand math concepts, solve word problems, use estimation methods, and interpret data from graphs and tables.

Weak: Seldom can understand math concepts or solve word problems. Rarely can use estimation methods or interpret data from graphs and tables.

Content Summary Grade 5 Science

Students in grade 5 must understand scientific concepts in Earth and space science, life science, and physical science. They must also demonstrate grade-appropriate understanding of the process of scientific inquiry and be able to analyze and interpret the results of experiments. The content and process dimensions of scientific knowledge at this grade level include:

Earth and Space Science

- Earth's composition and structure
- Changes in and around Earth
- The universe

Life Science

- Structures of living things
- Life cycles
- Environmental interactions and adaptations

Physical Science

- Mechanics, forces, and motion
- Energy
- Properties and changes of matter

Scientific Inquiry

- Processes and skills
- Analysis and Interpretation

Performance Level Descriptors Grade 5 Science

The performance level descriptors on the Achievement Levels Report for The Iowa Tests are provided to Iowa schools to describe the level of performance of groups and monitor progress in the distribution of performance over time. For each achievement level— High, Intermediate, and Low—descriptors on the report identify what the typical student in each level is able to do. Students in a particular level satisfy the standards described for performance in lower levels. Students at the High and Intermediate Performance Levels meet the standard for proficiency in science for that grade.

High Performance Level: Understands ideas related to Earth and the universe and the physical sciences. Usually understands ideas related to the life sciences and demonstrates the skills of scientific inquiry.

Distinguished: Understands ideas related to Earth and the universe and the physical sciences. Understands ideas related to the life sciences and demonstrates the skills of scientific inquiry.

Accomplished: Understands ideas related to Earth and the universe and the physical sciences. Usually understands ideas related to the life sciences and demonstrates the skills of scientific inquiry.

Intermediate Performance Level: Usually understands ideas related to Earth and the universe. Sometimes understands ideas related to the life sciences and the physical sciences. Often can demonstrate the skills of scientific inquiry.

Skilled: Usually understands ideas related to Earth and the universe. Usually understands ideas related to the life sciences and the physical sciences. Often can demonstrate the skills of scientific inquiry.

Moderate: Usually understands ideas related to Earth and the universe. Sometimes understands ideas related to the life sciences and the physical sciences. Often can demonstrate the skills of scientific inquiry.

Low Performance Level: Seldom understands ideas related to Earth and the universe, the life sciences and the physical sciences. Rarely demonstrates the skills of scientific inquiry.

Marginal: Seldom understands ideas related to Earth and the universe, the life sciences and the physical sciences. Seldom demonstrates the skills of scientific inquiry.

Weak: Seldom understands ideas related to Earth and the universe, the life sciences and the physical sciences. Rarely demonstrates the skills of scientific inquiry.